

CENTRAL INTELLIGENCE AGENCY

REPORT NO.

**INTELLOFAX 21**

# INFORMATION REPORT

CD NO.

COUNTRY Germany (Russian Zone)

DATE DISTR. 19 Sept. 1949

**SUBJECT**     The JU'O-266 Engine

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25X1A

**PLACE  
ACQUIRED**

NO. OF ENCLS.  
(LISTED BELOW)

DATE OF IN

SUPPLEMENT TO  
REPORT NO.

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1. Jumo-226 engine

a. The aluminizing of the intermittent propulsive ducts was performed by the metal spraying method. After completion of all the required welding operations, the inner and outer sides of the body and the jet engine were sand blasted.

b. The inner and outer surfaces were then coated with pure aluminum by means of a metal spray gun. The protective coat was from 0.1 to 0.15 mm thick. After the surfaces had been sand blasted it was forbidden to touch them by hand since the tiniest amount of grease prevented the adhesion of the aluminum coating. The spraying process lasted for about two and a half hours. After the spraying a water-glass solution was applied to the surface. When this solution had dried the engine could be put into operation, as the maximum working temperatures were around 750 degrees centigrade. It is advisable to anneal components which are subjected to a higher thermal stress, for one or two hours at temperatures of from 600 to 700 degrees centigrade. After this time the aluminum will have diffused into the iron surface by some tenths of a millimeter. If the annealing was done at initial temperatures higher than 800 degrees centigrade, the aluminum might melt and drop. The Jumo-266 was to be installed only in the EF-126 ground attack plane. The German experimental type EF-127 was not further developed by the Soviets.

## 2. Materials used

1012.2 plain C-steel, of good drawing properties; easy to weld.  
Tensile strength  $\sigma_{\text{B}}$  - 16 kg/mm<sup>2</sup>  $\sigma_{\text{p}}$  - 28 kg/mm<sup>2</sup>

Elongation at failure of - 26%

V2-A extra: 18% of chrome, 9% of nickel, 1% of tungsten, 0.1% of carbon.

Good welding properties; scale resistant up to 850 degrees centigrade; melting point around 1,400 centigrades.

 $\sigma_f = 25 \text{ kg/mm}^2$ 

40%

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C9ml8: 9% of chrome, 18% of manganese, 1.5% of silicon,  
0.1% of carbon.

Highly heat resistant, weldable, highly scale resistant, tough.

$\sigma_s$  - 35 kg/mm<sup>2</sup>,  $\sigma_b$  - 70 kg/mm<sup>2</sup>,  $\delta$  - 40%

C9ml8 was used for the turbine blades of the Juno-004 engines.

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